A New Noncrushing Intestinal Clamp

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IN SURGICAL OPERATIONS entailing an opening in the intestinal tract, there is always the problem of preventing spillage of intestinal contents. The "soft" intestinal clamps now generally used are straight or slightly curved instruments 8 to 12 inches long. They are adequate if the involved intestinal loops are mobile and easily exposed but are of limited value if exposure is restricted and space limited.

For example, one of the problems faced in low anterior resection of the rectosigmoid colon is the prevention of spillage from the proximal portion of the colon while anastomosis is being done. The standard straight or curved "soft" intestinal clamps, owing to their shape and size, tend to twist or sharply angulate the proximal colon when attempt is made to bring it down into the depths of the pelvis. One attempt that was made to avoid this distortion and angulation of the proximal colon during anterior resection was the development of right-angle intestinal clamps. Now in general use, these right-angle clamps have handles 10 to 15 inches long to permit either the operating surgeon or an assistant to manipulate the colon for easier placement and suturing during anastomosis. However, the length and weight of such clamps are definite drawbacks; they are in the way during earlier stages of the operation. In addition right-angled instruments of this type are particularly suited only to anterior resections and can be used only rarely in other parts of the abdomen.

It appeared, therefore, that a more applicable instrument would be a light, noncrushing clamp with a small handle. Such a clamp would not take up too much space when used in anterior resections of the colon and indeed could be used anywhere within the abdominal cavity where occlusion of the intestine was needed, space was limited or exposure poor. Ideally, the instrument could be applied as simply as a bull-dog clamp is applied to a blood vessel in vascular operations.

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With these requirements in mind, the intestinal instrument pictured in Figure 1 was designed. Weighing less than 2 ounces, it does not restrict the mobility of the bowel. It can be made with blades of different lengths. Those pictured are 3 inches long. As the surfaces that clamp the intestine are a half-inch wide, the pressure is distributed over enough area not to damage the intestine while the clamp is in position. As the instrument is being closed, the tips of the blades meet first, then the main body of the surfaces come together as slightly more pressure is applied. Longitudinal serrations to prevent slippage make cloth or rubber coverings for the jaws unnecessary. The handle of the instrument, being at right angles to the jaws, lies parallel to the bowel during actual use.

This instrument has been used in a large number of intestinal operations and has been found to overcome many of the difficulties noted with the use of clamps of the kind formerly employed.

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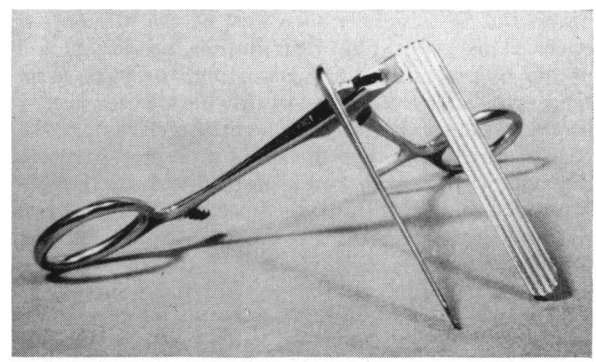

Figure 1.—New style, lightweight intestinal clamp in open position showing wide, serrated surface of blades which are set at right angle with shafts. (The instrument is obtainable from V. Mueller and Co., Chicago, Illinois.)